

GENERAL AND REVENUE SECRETARIAT.

P12

1907
(Municipal) 149-07

File No. 149-07

Serial Nos. 114 12

Papers Filed.

Month Feb 08

SUBJECT
*Notes of Inspection of the Mysore City
Water Works*

PREVIOUS REFERENCES

LATER REFERENCES

GENERAL AND REVENUE SECRETARIAT

(Municipal)

NOTES

File No 149

FILE HEADIN

Notes of inspection of the Mysore City
water works

From

The Sanitary Commissioner

No 1915 Dated 28/12/07 Received 28/12/07

Diary No 4569

Enclos 3 Spare Copies

Serial No 11

BRIEF ABSTRACT OF LETTER

Submits for information a copy of her^{tho} letter
No 1914 & 28/12/07 addressed to the Ch Engr about the
Mysore City water works and suggests that, for
reasons, 'the water supplies in the State be placed
under the Sanitary Engineer's Supervision'

NOTES AND ORDERS

P 70

28/12
Plague ^S Department of Health

1907-0

From,

~~LT COL JOHN SMYTH M D FRS~~
~~Senior Surgeon and San Commr~~
with the Government of Mysore

To

The Secretary to the Govt of H H the
Maharaja of Mysore, Gen & Rel Depts
Bangalore

Dated 28.12.07

Despatched

Received

General No R 1915

File No 3

Forwarding Copy of
no 1914 dt 28.12.07 addressed
to the Chief Engineer regard-
-ing the improvement of the
water supply of the Mysore
City

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D 4569
No. P 1915
Enc 3

Office of the
Senior Surgeon and Sanitary Comm

Dated, Bangalore, the 28.12.1907
ml 149-07
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From

Major H E. Drake-Brockman
~~LT. COL. JOHN SMYTH, M.D., I.M.S.,~~
~~Senior Surgeon and Sanitary Commissioner, with the~~
Government of His Highness the Maharaja of Mysore,
BANGALOR

To

Secretary to the Government of His Highness the
Maharaja of Mysore, General and Revenue Departments,
BANGALORE

PLAGUE
DEPARTMENT.

Sir,

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With reference to para 2 of Government order No 2748-50/P.1 149-07-5 dated the 25th September 1907, I have the honor to forward herewith for the information of Government copy of this office no 1914 dated 28/11 Instant addressed to the Chief Engineer together with its enclosures. It is unfortunate that, in this important question of improvement of the water supply, of the Mysore City, the D P W should have taken the criticism as personal, as the report tendered by Dr Palpu on this subject was made in accordance with my orders and that too only after many personal inspections of the place and satisfying myself of the very urgent need for attention to many insular details in connection therewith. That such action on my part was necessary has since been well justified by the opinions arrived at and action taken as the result of the conference held on this subject at Mysore on 21st October presided over by the Chief Engineer himself at which all aspects of the several points at issue were admitted mutually discussed. Our

Our criticisms were never intended to cast aspersions of any kind on technical Engineering details, but only upon the results of such as they stood at the time in connection with matters relating to the public health and which have since been admitted by the D P W. to be capable at any rate of considerable improvement. As the points disputed ~~are~~ denied by them in very strong terms have however been mostly accepted since at the conference held at Mysore, the subject may be passed over as from the copy of the Mysore Health Officer's letters enclosed it will be seen that something is now being done to remedy the leaks in the filters etc. It is hoped that the leaky pipes will by degrees also be renewed shortly.

The correspondence on this subject could show Government that the Officer in charge of the water supply in Mysore is not only ignorant of the existing system in the correct methods of working but also of the principles involved in purification of water supplies by filtration. There is nothing strange in this as he has probably not actually seen any good filters at work anywhere. Government have spent a lot of money and had one of their D P W officers specially trained in Europe in Sanitary Engineering and that officer is now employed as Sanitary Engineer and is in direct touch with this Department as he is a member of the Central Sanitary Board. Mr. I have allowed to suggest that the water supplies in the State be placed under his supervision. The present water supply Engineer may be expert in Mechanical Engineering and is competent to supervise the machinery and use in connection with the filters but as I have said above he does not from his own saying appear to possess a very correct knowledge of the details of water filtration, and the importance of such from a sanitary standpoint. I am at last to wish to say in connection with this subject.

*He is very
much
the*

matter and there need be absolutely none whatever in
the future ~~if~~ my suggestions regarding the co-operation
of the officers of the two Departments for the public good
be carried out and adhered to which I shall always do my
very best to encourage

I have the honor to be,

Sir,

Your most obedient servant,



~~F.R.C.S.E. &~~
~~Major, I.M.S.~~

for Sanitary Commissioner in Mysore

Office of the Sanitary Commissioner
in Mysore, Bangalore.

From

P. Palpu Esqr., L.M.S., D.P.H.,
Deputy Sanitary Commissioner to the
Government of Mysore, Bangalore.

To

W. McHutchin Esqr., M.I.C.E.,
Chief Engineer and Secretary to Govt. P.W.D.
Bangalore.

No. 1914

Dated. 28.12.07

Enc 2

Sir,

With reference to last para of Resolution of the Committee that met in Mysore on the 21st of October last in connection with improvements necessary for the water supply of that City, I have the honor to report that I inspected the filter beds with Mr. Rungaswamy Iyengar the Water supply Engineer and Mr. Mankar the Mysore Health Officer on the morning of Sunday the 28th October. The 1st Councillor Mr. Ananda Rao, Mr. Sitarama Rao the President of the Improvement Trust Board and Mr. Amble Pandit one of the Municipal Commissioners in Mysore were also present on the occasion. One of the filters was then empty and it was observed that from the valve chamber by its side into which water had leaked from the filter to a depth of several feet when the filter was in action, the stagnant water was running into the filter bed through several openings on the side wall. It was contended by the Water supply Engineer that there was no danger in the leak as the water was getting on the surface of the filter bed, but as a matter of fact the water was running along the side of the bed to the bottom which is certainly undesirable and may prove to be dangerous. It is essential that the filter should not leak either on the sides or at the bottom. This is insisted on everywhere as leaks in the filters

are ~~readily~~ dangerous

It was considered unnecessary to test leaks in the filter bed that was at rest at the time of my visit as the leaks could be seen without any testing. It was however decided to empty the bed in order to satisfy the Water Supply Engineer that there might also be leaks below the top layer of sand in the filter. Mr. Rungaswamy Iyengar promised to let me know when he had emptied the bed for the purpose but I have not yet heard from him on this point. In this connection I would enclose a copy of a D.O. since received from the Health Officer Mysore City on the subject. The D.O. speaks for itself. It would have been better if the Water Supply Engineer had given intimation of this to me himself.

I had in my original report said that the pure water tank was also leaky. I attempted to test this, but Mr. Rungaswamy Iyengar said he would empty one of the compartments of this so that the water for issue may not be interfered with while testing, but he has not yet written to me on the matter. The D.O. referred to above shows that he has been repairing leaks in the pipe leading into this reservoir, without my knowledge.

As regards the leaks in pipes in the City one instance of a pipe leaking within a drain which was noticed by me on my way to the Exhibition ground was brought to the notice of the Water Supply Engineer in presence of Mr. Mantharaja Urs the President of the Municipality. This was a pipe leading to the house of Mr. Mahadeva Sastri. The pipe had become corroded by the action of sewage where it crosses the surface drain, and to prevent the water spouting out and playing like a fountain, a piece of dirty rag was ineffectually wound round the pipe by some one. It was evident that when the supply is cut off in this pipe as is now admitted to be often done, the drainage would be sucked into the pipe. Mr. Rungaswamy Iyengar said that the question was one that has to be dealt with by the house owner concerned and that he could not do anything in the matter.

I enclose a copy of an official communication on the subject since received from the Health Officer Mysore. A perusal of this letter will make it clear that something has to be done early to replace leaky pipes in Mysore and save the water supply from sewage-contamination.

In this connection I must also bring to your notice that the existence of an arrangement for the supply of unfiltered water to the City direct from the channel from the Kavery was denied by the Water Supply Engineer at the conference. He has since admitted the fact but says that that means of supply was not availed of and that unfiltered water has never been let into Mysore. The fact of his ignorance of its existence however does not speak well for his knowledge of the system! This may be considered a small matter but a perusal of his notes on my original letter will make any one that knows anything about water filtration feel astonished at the extent of his ignorance. The most important point in the filtration of public water supplies is the pressure or head over the filters and the rate of filtration and from the elaborate and misleading memoranda on the subject it is evident that the department has no clear idea of the subject and that the filtration was being carried on so long without its being regulated in this most important direction. To ascertain the head and to regulate the rate of filtration thereby is after all not a difficult as has been made out, and it may I think be done early, if not already seen to. In the conference that was held Mysore many of the points referred to in my original letter that were disputed in very strong terms were admitted without any fuss. It is hoped that the leaks in the filter beds and that pipes that were disputed would also be similarly admitted now, and that instead of continuing unnecessary correspondence, necessary measures will be taken to mend the leaks and put the water supply of Mysore

4.

City in order, as early as possible.

I have the honor to be,

sir,

Your most obedient servant,

(Sd) P Palpu, I V S, D P .

Deputy Sanitary Commissioner-

"Corr"

for 
Sanitary Commissioner, Mysore Govt
Bangalore

Letter No 460 dated 2nd December 1907 from the
Health Officer, Mysore City to the Sanitary
Commissioner, Mysore Govt Bangalore

With reference to a copy of your inspection notes relating to Water Supply of the Mysore City, I have the honor to state that I have noted all the points mentioned therein for my observation and guidance. In respect thereof I beg to draw your attention to one particular point in connection with the laying up Water pipes in this City. In many places I have noticed that the house connection pipes are laid unprotected along the length or across the bottom of a drain. Where it happens to be a sewage drain, the danger is obvious. Where it is a shallow street drain the pipe is embedded in filth. I have come across many leaky pipes and in the instances the leaks are situated in the drain.

In some places soil pipe and house (water) pipe run side by side, and the latter is constantly wetted in the sleep water spurting out from leaks in the former.

As regards existing or old stone pipes no proper drainage is provided for in majority of cases, as a result of which, spillings and waste water soak into the ground round or run out on road-side and make the place of accumulation

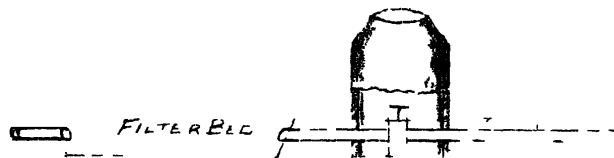
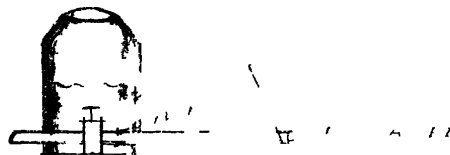
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Sanitary Commissioner

D O c n l dated 29th November 1907 from V I
 anker, Health Officer, Mysore City to the
 Deputy Sanitary Commr Mysore Govt
 Bangalore

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I visited the Filter beds yesterday. The valve chamber between the Storage Reservoir and one of the filter beds, that was full of water and opposite which there ^{was} leakage in the Filter bed tank, is emptied now. I find there is a big hole, about the size of a rupee in the pipe leading from the valve to the filter bed. Had there been no hole, there would have been no water in the chamber and therefore the leakage in the bed. It is plugged now and the chamber is *quite dry*. As the filtering medium is not all turned out I cannot say if the leakages were below the level of medium or not. Similarly you remember the valve chamber between one of these beds and the service reservoir, that contained water and that you wanted to fill up with bucket. There is still water in it and its level is the same as that in the corresponding bed. A trench is cut along the subterranean pipe from this chamber to the service reservoir. This trench is full of water. When I learn that there is a hole in this pipe to get in, they have dug this trench. Continuation of filter bed in the service reservoir is clear and it is level, I find.



I v l u t i t c n l dated 29th November 1907 from V I

"COI "

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Plague Department of Health

1801
190 20

From,

~~LT. COL JOHN SMYTH, M.D., F.R.S.,~~
~~Senior Surgeon and San Commr~~
with the Government of Mysore

To

The Secretary to the Govt of H H the
Maharaja of Mysore, Gen & Rev Depts
Bangalore

Dated

Despatched

Received

General No * 2054

Enclosure No 1

Forwarding for
information copy of a
further communication
made to the Chief Engineer
in re the water supply of
Mysore

No P 2054
Enc 1

RC 1149-07
S(12)

Office of the
Senior Surgeon and Sanitary Commission

D 4675

Dated, Bangalore, the 6. 1 1908

From

Major H F Drake-Brockman
Lt-Col JOHN SMYTH, M.D., I.M.S.,
~~Senior Surgeon and Sanitary Commissioner, with the~~
Government of His Highness the Maharaja of Mysore,
BANGALOR

To

C S Balasundram Iyer Esqr, F.A.,
Secretary to the Government of His Highness the
Maharaja of Mysore, General and Revenue Departments,
BANGALORE

PLAGUE
DEPARTMENT

Sir,

In continuation of this office letter to 1915—
dated 28/12/07 I have the honor to forward herewith for in-
formation of Government copy of a further communication
made to the Chief Engineer in re the water supply of
sore

I have the honor to be,

Sir,

Your most obedient servant,

H F Drake-Brockman

for

Sanitary Commissioner, G

Letter No 1034 dated the 30th Dec 1907 from the
Sanitary Commissioner to the Chief Engineer
in Mysore, Bangalore
-----c00-----

In continuation of this office No 19/4 dated 28/12/07
regarding the water supply in the City of Mysore, I have
the honor to state that I have taken the opportunity of
personally inspecting the present state of affairs there
and it only goes to support my contentions as regards
these filters and amply explains and corroborates the
Bacteriological results we have obtained from time to
time by repeated analyses. A reference to diagram A is
kindly invited. I have inspected the work and there is
little doubt that this defective pipe is the chief source
of pollution of the water in the service reservoir, which
has at times shown a very much larger percentage of bacteria
than that in the storage reservoir or filter beds.
This leak (a large one) has not only kept water filled
up in adjoining valve chamber to a considerable depth
but has also caused serious cozing outside valve chamber
and along the conduit pipe connecting valve chamber to
service reservoir, and as the leakage which enters
within the valve chamber and also the trench laid down
in the corner of the pipe) is a large one, it is more than
probable that by so doing some as well as a capillary
attraction, the water actually in service reservoir
becomes daily contaminated. The actual valve chamber
being practically a dead end, and at too not too much
exposed to air, becomes more or less an incubator for
microbes, and at times, when the water pressure falls,
will allow a lot of stagnant water rain sucked into the
pipe and conveyed into the service reservoir even
practically a constant supply of contaminated
water after it has left the filter bed. Bacteriological
evidence is very clearly furnished +